Practicing Astral Magic in Sixteenth-Century Ottoman Istanbul

A Treatise on Talismans Attributed to Ibn Kemāl (d. 1534)

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The Ottoman courtly context in the "long sixteenth century" (1450 to 1640), as Fernand Braudel has called it, is an ideal but neglected historical laboratory for examining the use of occult lore for purposes predictive, protective, and entertaining. A sizeable yet sorely understudied amount of archival and material sources testifies to the fact that several sixteenth-century Ottoman sultans utilized an impressive array of occult arts in furtherance of their royal aims. For instance, a number of astrologers and alchemists worked for Bāyezīd II (r. 1481–1512), whose keen interest in and cultivation of these sciences provoked the curiosity of his contemporaries.[1] His son Selīm I (r.

I would like to thank Elizabeth Sartell and Shandra Lamaute for giving me the opportunity to present an earlier version of this paper at the "Characterizing Astrology" conference at the University of Chicago, May 2015. Gratitude is also owed to Cornell H. Fleischer, Mohamad Ballan, and other conference participants for their insightful comments and questions. Special thanks to Nükhet Varlık for notifying me of the treatise examined in this paper, and to Matthew Melvin-Koushki for his crucial touches to the final version of this study. Finally, I would like to thank the two anonymous reviewers for their careful and helpful suggestions. Needless to say, all shortcomings, errors, and omissions are my responsibility.

1. For the story of alchemical displays featured in the presence of Bāyezīd II, see: Tzvi Langermann, "From My Notebooks: A Compendium of Renaissance Science: *Taʿalumot Ḥokmah* by Moses Galeano," *Aleph* 7 (2007): 285–318; idem, "From my Notebooks: Medicine, Mechanics, and Magic from Moses ben Judah Galeano's *Taʿalumot Ḥokmah,*" *Aleph* 11 (2011): 385–413. See also: Tuna Artun, "Bâyezîd-i Kîmyâ'î: Osmanlı Kimya Metinlerinde Sultan II. Bayezid," *Journal of Turkish Studies: Türklük Bilgisi Araştırmaları* 39 (2013): 181–186. For his personal interest in studying the science of the stars and its reception among his contemporaries, see my forthcoming "Reading the Stars at the Ottoman Court: Bāyezīd II (r. 1481–1512) and His Celestial Interests," *Arabica*.

Magic, Ritual, and Witchcraft (Spring 2017)
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1512–1520) was attentive to the lettrist analyses of certain quranic verses that several distinguished scholars, including Ibn Kemāl (d. 1534), the major protagonist of this article, produced to legitimize Ottoman military campaigns against rival Muslim polities, especially the Safavids and Mamluks.[2] During especially the first half of the reign of Süleymān (r. 1520–1566) the science of geomancy (*ʿilm-i reml*) enjoyed particular esteem, due in the first place to the close proximity of Ḥaydar the geomancer (*remmāl*) to the sultan.[3] Süleymān's grandson Murād III (r. 1574–1595) had a marked penchant for oneiromancy, as it was part of his daily routine to send his dreams to his Sufi master for interpretation.[4]

While the individual proclivities of different sultans played a decisive role as to which particular practice would receive more royal favor than others, several fields of expertise enjoyed consistent demand. Bibliomancy, for example, was a natural component of courtly parties and scholarly gatherings where specific books were opened on a random page and relevant passages or verses were used for divination.[5] A marginal note in a surviving copy of a

2. Although Jan Schmidt notes, relying upon Muṣṭafā ʿĀlī's (d. 1600) historical narrative, that Ibn Kemāl ridiculed a certain Sufi shaykh for his lettrist interpretation of a quranic verse as prognostic for Selīm's predicted conquest of Egypt, Ibn Kemāl himself composed a similar report to prophesy Selīm's defeat of the Mamluks in Egypt and Syria based upon a verse from the *Ṣūrat al-Anbiyāʿ* (Q 21: 105). See: Mustafa Kılıç, "İbn Kemal'in Mısır Fethine dair bir Risale-i Acibesi," *Diyanet Dergisi* 26, no. 1 (1990): 111–20. For Schmidt's remarks, see: Jan Schmidt, *Pure Water for Thirsty Muslims: A Study of Muṣṭafā ʿĀlī of Gallipoli's Künhü l-Ahbār* (Leiden: Het Oosters Instituut, 1991), 113. For the letter of Aḥmed b. Khiḍr Beg (d. 1521), the jurist of Bursa, as to the lettrist interpretation of quranic verses (Q 30: 1–4) in regard to the Ottoman victory against the Safavids at the Battle of Chaldiran, see: Matthew Melvin-Koushki and Ahmet Tunç Şen, "Divining Chaldiran: Ottoman Deployments of Astrology, Lettrism, and Geomancy in the Ottoman-Safavid Conflict" (forthcoming).

3. Quotations from the original text and other concepts inserted in round brackets are transcribed according to conventional Ottoman Turkish orthography rather than Arabic. Hence, the reader will find throughout this article such uses as *Ṣüreyyā* instead of *al-Thurayyā*, *tecrübe* rather than *tajriba,* or *şeyḫülislām* instead of *shaykh al-islām*. For the story of the geomancer at the court of Süleymān, see: Cornell H. Fleischer, "Seer to the Sultan: Haydar-i Remmal and Sultan Süleyman," in *Cultural Horizons. A Festschrift in Honor of Talat S. Halman,* vol. 1, ed. Jayne Warner (New York: Syracuse University Press, 2001), 290–300. For a brief overview of this science and its procedures, see: Emilie Savage-Smith, "Geomancy," *Encyclopedia of Islam, Third Edition,* online version.

4. *Kitābü'l-Menāmāt*: *Sultan III. Murad'ın Rüya Mektupları*, ed. Özgen Felek (İstanbul: Tarih Vakfı, 2014).

5. See: Jan Schmidt, "Hāfiz and other Persian Authors in Ottoman Bibliomancy: The Extraordinary Case of Kefevī Hüseyn Efendi's *Rāznāme* (Late Sixteenth Cen-

sixteenth-century biographical dictionary of poets informs us, for instance, that a number of individuals in the immediate circles of Bāyezīd II, Selīm I, and Süleymān were in the habit of treating the stanzas of Ṣeyḫī (d. after 1429), an influential fifteenth-century Ottoman poet, as a divinatory text, prognosticating on their basis the possible outcomes of a military campaign or the fight for the throne among contending princes.[6] More generally, the manuscript record suggests that construction of comprehensive prognosticons (*cifr-i cāmiʿ*) was routine; indeed, ʿAbd al-Raḥmān al-Bisṭāmī's (d. 1454) *Miftāḥ al-Jafr al-Jāmiʿ*, a seminal lettrist work, functioned as Ur-text for Ottoman imperialism as such.[7] The crafting of talismanic shirts was yet another common service demanded regularly by members of the dynasty and high-ranking functionaries eager to benefit from their military and political applications.[8]

Among the occult sciences, however, astrology secured the most systematic form of patronage in the early modern Ottoman context. Needless to say, the appeal to astrologers' services was a standard feature of medieval and early modern court culture around the globe; the sixteenth-century Ottoman court is thus no exception.[9] What is striking in the Ottoman case, however, is that from around the late fifteenth century onwards, astrological patronage was institutionalized through the creation in the Ottoman court bureaucracy of a permanent office for astrologers that remained functional up until the

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tury)," *Persica* 21 (2006–7): 63–74; Massumeh Ferhad and Serpil Bağcı, "The Art of Bibliomancy and Falnama in the Sixteenth and Seventeenth Centuries," in *Falnama: The Book of Omens,* ed. Massumeh Farhad and Serpil Bağcı (Washington D.C.: Arthur M. Sackler Gallery, Smithsonian Institution, 2009), 20–39.

6. Aşık Çelebi, *Meşairü'ş-Şuara,* v. 3, ed. Filiz Kılıç (İstanbul: Suna ve İnan Kıraç Vakfi, 2010), 1456, fn. 158. For the life of Ṣeyḫī and Persian influences upon his poetry, see: Halit Biltekin, "Ṣeyḫī," *Türkiye Diyanet Vakfı İslam Ansiklopedisi,* vol. 39, 80–82.

7. Cornell H. Fleischer, "Ancient Wisdom and New Sciences: Prophecies at the Ottoman Court in the Fifteenth and Early Sixteenth Centuries," in *Falnama: The Book of Omens,* ed. Massumeh Farhad and Serpil Bağcı (Washington D.C.: Arthur M. Sackler Gallery, Smithsonian Institution, 2009), 231–43.

8. Hülya Tezcan, *Topkapı Sarayı Müzesi koleksiyonundan Tılsımlı Gömlekler* (İstanbul: Timaş, 2011).

9. Although available literature on the courtly patronage of astrology in the medieval and early modern Eurasia is vast, I find these studies particularly useful: Monica Azzolini, *The Duke and the Stars: Astrology and Politics in Renaissance Milan* (Cambridge, Mass.: Harvard University Press, 2013); Darin Hayton, *The Crown and the Cosmos: Astrology and the Politics of Maximilian I* (Pittsburgh, Pa.: University of Pittsburgh Press, 2015).

dissolution of the empire in the early twentieth century.[10] These monthly salaried court astrologers received their earnings in return for their specific services, such as the casting of annual horoscopes and designation of auspicious times for initiating military campaigns, constructing imperial building, or even manufacturing talismanic shirts, all of which endeavors served obvious political, ideological, and military purposes.

Despite this rich textual and material evidence for the practice of astrology and other divinatory disciplines, the relevant literature in both European historiography and Islamic studies has largely neglected the occult learning and practice standard within and beyond the Ottoman court. The major reason for this curtailed representation of the Ottomans in these broader historiographical traditions is the inadequate exploration of the rich extant sources by modern Ottoman historians. To help ameliorate this lacuna, this paper introduces one of these many sources, a brief treatise on talismans and celestial magic composed likely in the first half of the sixteenth century by one of the leading scholars of the time. Despite its brevity, the treatise provides us some important insights into a host of cultural, intellectual, and social issues of the time, such as the question of the compatibility of astral pursuits with Islamic religious norms, the importance of royal and urban medical needs for cultivating celestial knowledge, and the emphasis on mathematical precision and technological advancement for the more accurate practice of celestial magic.

THE TEXT AND ITS CONTENTS

The text is known and catalogued in the available bio-bibliographical sources as simply a "Treatise on Talismans" (*Risāle-i ṭılsım*), but within the text itself the author does not provide a title or specify the identity of the sultan to whom he dedicated it.[11] Only in the epilogue does he reveal his name as

10. For the transition in the late fifteenth century from the *ad hoc* astrological service of heavenly experts into monthly salaried palace personnel, see my unpublished dissertation: "Astrology in the Service of the Empire: Knowledge, Prognostication, and Politics at the Ottoman Court, 1450s–1550s" (Ph.D. diss., The University of Chicago, 2016). For a general overview of the history of the office of Ottoman court astrologers, see: Salim Aydüz, "Osmanlı Devleti'nde Müneccimbaşılık Müessesesi," *Belleten* 70, no. 257 (2006): 167–264 (based upon his MA Thesis, "Osmanlı Devleti'nde Müneccimbaşılık ve Müneccimbaşılar" [Istanbul University, 1993]).

11. The text has already been transcribed and published by Sayın Dalkıran on the basis of the copy now housed as Süleymaniye Library Esad Efendi Ms. 3782 (folios 86r–89r). Unfortunately, due to the publisher's lack of knowledge about technical terminology of the astral lore, several important passages were read inadequately. I will, thus, refer throughout the article to the original manuscript copies of the text. For more information on the copies of the text, see note 18. For Dalkıran's study,

Aḥmed b. Süleymān.[12] Based on this piece of evidence, the text has been attributed to Ibn Kemāl (also known as Kemāl Paşazāde), one of the most prestigious scholars and prolific writers in the early modern Ottoman intellectual setting, whose proper name was Şemseddīn Aḥmed b. Süleymān.

Throughout his career Ibn Kemāl held various teaching and administrative posts and composed over two hundred works in a wide range of disciplines, from Arabic grammar and theology to jurisprudence and poetry.[13] He began his career as a cavalryman, but after becoming aware of the veneration shown by the prominent statesmen and military officials to even the minor members of the scholarly establishment (*ʿulemā*) he decided to change his career path to become a scholar (*ʿālim*). Upon completing his formal education in the late 1490s, he received his first appointment as an instructor to a madrasa in Edirne, which was to be followed by ensuing offices in higher ranking educational institutes of Istanbul, thanks to his good rapport with key scholar-bureaucrats of the time, including Müʾeyyedzāde ʿAbdurraḥmān (d. 1516).[14] Ibn Kemāl's teaching and administrative career reached its apex in 1526 when he was assigned the post of *şeyḫülislām* (*lit*. religious leader of Islam, in practice to the chief jurist of Istanbul), which he occupied until his death in 1534.

During his four-decade service as a learned individual, Ibn Kemāl was an integral part of the intellectual entourage around Bāyezīd II, Selīm I, and Süleymān, each of whom personally commissioned him to produce works in different genres for different dynastic needs. Bāyezīd II, for instance, asked him to compose in Turkish a comprehensive history of the Ottoman dynasty.[15] Selīm I ordered him to complete the Turkish translation of an Arabic

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see: Sayın Dalkıran, "İbn-i Kemal'in Tılsımat Risalesi," *Türk Dünyası Araştırmaları* no. 104 (1996): 195–208.

12. *Risāle-i Ṭılsım* (from here on RT), Süleymaniye Library Hacı Mahmud Efendi Ms. 5584, 54v-55r: "*bu faḳīr-i bī-tuvān aʿnī Aḥmed b. Süleymān.*"

13. For an overview of his life and works, see: V. L. Ménage, "Kemāl Pashazāde," *Encyclopedia of Islam, Second Edition,* online version.

14. As the chief military judge of Rumelia, Müʾeyyedzāde was responsible for regulating the appointments in the scholarly hierarchy (for both instructorships and judgeships) in the core provinces of the empire. For the rise of indigenous Ottoman "scholar-bureaucrats" in the "long sixteenth century," see: Abdurrahman Atçıl, *Scholars and Sultans in the Early Modern Ottoman Empire* (Cambridge: Cambridge University Press, 2016).

15. It must be around 1503 that Ibn Kemāl was recommended to Bāyezīd II by Müʾeyyedzāde ʿAbdurraḥmān to compose in Turkish the history of the Ottoman dynasty. Ibn Kemāl kept working on his history during the reign of Süleymān, as he completed in the 1520s the tenth and the last volume, which was on the reign of Süleymān, the tenth Ottoman sultan.

manual on sexual medicine.[16] By the time of Süleymān and during especially his tenure as the *şeyḫülislām,* Ibn Kemāl religiously defined and rationalized, through his fatwas and short theological treatises, certain imperial policies such as the war against the Shi'i Safavids or the prosecution of recalcitrant preachers.[17]

As is evident from even such a brief description of his life and oeuvre, Ibn Kemāl functioned throughout his career as both a traditional scholar, who invested much of his intellectual capital in learning, teaching, and writing in essentially approved sciences in madrasas, and as a polymath courtier, who was ready to meet his patrons' different needs from broader fields of expertise. Given his wide fame in modern historiography as an eminent religious scholar, one would hardly expect Ibn Kemāl to have written a treatise on talismans and celestial magic. And indeed, there is reason to question the authenticity of this text's authorship by him, as the oldest surviving copy with an identifiable colophon dates only to December 1596, more than six decades after his death.[18] Nevertheless, all modern studies that aim to locate the authentic works of Ibn Kemāl establish this particular treatise as one of his original compositions.[19] More importantly, the majority of the extant copies of the treatise coming to us from the late sixteenth and seventeenth centuries bear in their titles attestation to Ibn Kemāl's authorship, and are bound along with some of his other writings.[20] Last but not least, based on internal evidence gleaned from this particular text as well as Ibn Kemāl's other writings,

16. As far as the extant copy written by Ibn Kemāl is concerned, he completed the translation of the text, *Terceme-i Rujūʿ al-shaykh ilā ṣibāḥ fī al-quwwa ʿalā al-bāh* (The Old Man's Return to his Youth in Sexual Prowess), in the year 1519. See: Süleymaniye Library Hamidiye Ms. 1012.

17. See: Ahmet Yaşar Ocak, *Osmanlı Toplumunda Zındıklar ve Mülhidler, 15.–17. Yüzyıllar* (İstanbul: Tarih Vakfı, 1998), 270–79, 406–14; Nabil al-Tikriti, "Ibn-i Kemal's Confessionalism and the Construction of an Ottoman Islam," in *Living in the Ottoman Realm: Empire and Identity, 13th to 20th Centuries,* ed. Christine Isom-Verhaaren and Kent F. Schull (Bloomington: Indiana University Press, 2016), 95–107.

18. RT, Süleymaniye Library Esad Efendi Ms. 3782, 89r.

19. See: Nihal Atsız, "Kemalpaşaoğlu'nun Eserleri I," *Şarkiyat Mecmuası* 6 (1966): 71–112; *idem*., "Kemalpaşaoğlu'nun Eserleri II," *Şarkiyat Mecmuası* 7 (1972): 83–135; Yekta Saraç, *Şeyhülislam Kemal Paşazade: Hayatı, Şahsiyeti, Eserleri ve Bazı Şiirleri* (İstanbul: Risale, 1995); Sayın Dalkıran, *İbn-i Kemal ve Düşünce Tarihimiz* (İstanbul: Osmanlı Araştırmaları Vakfı, 1997); Şamil Öçal, *Kışladan Medreseye: Osmanlı Bilgini Kemalpaşazade'nin Düşünce Dünyası* (İstanbul: İz Yayıncılık, 2013).

20. This particular treatise seems to have survived in at least six surviving copies. Five of them are now located in Turkey and one in Saudi Arabia, and I have had access to three of them. In addition to the Esad Efendi Ms. 3872 already used by

and on circumstantial evidence with regard to the intellectual context of the late fifteenth and early sixteenth-century Ottoman world as described above, in which Ibn Kemāl was a key player, such an ascription to Ibn Kemāl should not be surprising.

It is simply due to the established conventions in modern Islamic and Ottoman studies that many scholars find it difficult to imagine that a prominent scholar of religious sciences of the caliber of Ibn Kemāl could have written such a work on talismans. Contrary to the received wisdom in modern scholarship, which often facilely and quite ahistorically assumes that the traditional *ʿulemā* from different parts and periods of Islamic history categorically rejected astrology and other divinatory practices, there is growing evidence, especially from the post-thirteenth-century Turko-Persian cultural zone, that different forms of occult practice penetrated into the social and intellectual world of so-called sharia-minded scholars, especially under the aegis of the court.[21] It is this particular historical and intellectual context in which this short treatise attributed to Ibn Kemāl should be situated.

The text opens, after the standard invocation of God and brief doxology in praise of the Prophet Muhammad, with a passage informing us that the author composed it upon the sultan's request to learn more about the principles of the science of talismans, its different types and benefits, and its specific use to prevent the bubonic plague (*ṭāʿūn*), one of the most vexing problems of life in the sixteenth-century Ottoman landscape.[22] While bubonic plague

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Dalkıran, the other two copies examined for this article are: Süleymaniye Library Şehid Ali Paşa Ms. 2795 (fols. 13v–16v) and Süleymaniye Library Hacı Mahmud Efendi Ms. 5584 (fols. 37v–56v). The references throughout the article follow the page numbers of the latter, unless otherwise noted. For information on the extant copies of the text, see: Nihal Atsız, "Kemalpaşaoğlu'nun Eserleri I," *Şarkiyat Mecmuası* 6 (1966): 80–81; *Osmanlı Astroloji Literatürü Tarihi ve Osmanlı Astronomi Literatürü Tarihi Zeyli* (İstanbul: IRCICA, 2011), 17.

21. See: Robert Morrison, *Islam and Science: The Intellectual Career of Nīẓām al-dīn Nīsābūrī* (London: Routledge, 2007), especially 63–77; Cornell H. Fleischer, "Ancient Wisdom and New Sciences: Prophecies at the Ottoman Court in the Fifteenth and Early Sixteenth Centuries," in *Falnama: The Book of Omens,* ed. Massumeh Farhad and Serpil Bağcı (Washington: Smithsonian Institution, 2009), 231–45; Matthew Melvin-Koushki, "The Quest for a Universal Science: The Occult Philosophy of Ṣāʾin al-Dīn Turka Iṣfahānī (1369–1432) and Intellectual Millenarianism in Early Timurid Iran" (Ph.D. diss., Yale University, 2012); İ. Evrim Binbaş, *Intellectual Networks in Timurid Iran: Sharaf al-Dīn ʿAlī Yazdī and the Islamicate Republic of Letters* (Cambridge: Cambridge University Press, 2016).

22. R.T, 37v–38r: "[E]*mr-i ʿālī fermān-ı sulṭānī ve ḥükm-i celīl-ʿunvān-ı ṣāḥibḳırānī vārid olub ʿilm-i ṭılsımātıñ ḥaḳīḳatinden ve kemiyetinden ve fī zamāninā vücūdunuñ ḳābiliyetinden ḫāṣṣa ṭāʿūn defʿine bāʿiṯ olduġunuñ ʿilletinden istikṣāf buyuruldukda . . ."*

was a perennial problem in earlier phases of Ottoman history, the immediate territorial expansion of the empire after 1517 on several fronts, the concomitant population growth, and rapid urban transformation in various cities brought new and diversified paths of contamination.[23] The territories governed by the Ottomans in the sixteenth century witnessed numerous waves of plague, and one of the most severe epidemics broke out in between 1520 and 1529, during Ibn Kemāl's tenure in the capital.[24] It is relevant in this context that Ibn Kemāl is also credited with the composition in Arabic of a particular plague treatise, known generally as *Rāḥat al-arwāḥ* ("Souls' Comfort"), in which he prescribes, *inter alia,* spiritual and occult methods, including the use of amulets and magic squares inscribed with prayers and/or other special formulae.[25]

Unlike this plague treatise that offers detailed prescriptions, the treatise on talismans does not include any diagrams or symbols, letters, prayers and recipes for suffumigations, or similar ingredients one would normally expect to find in a work on talismans.[26] The book stands rather as a sort of research proposal that the author conceptualized and presented the sultan before embarking on writing a more elaborate version upon securing his patronage. It is organized into one general introduction, three individual chapters, and a brief epilogue, and each chapter is further divided into three subsections. Throughout the text the author often mentions only the general theoretical

23. For the detailed examination of the plague in the late medieval and early modern Ottoman world, see: Nükhet Varlık, *Plague and Empire in the Early Modern Mediterranean World: The Ottoman Experience, 1347–1600* (Cambridge: Cambridge University Press, 2015).

24. Ibid., 164–71.

25. Ibid., 233. This plague treatise has survived in over forty copies, the oldest of which seems to have come down to us from the year 1560–1. Unfortunately the date of its original composition is yet to be ascertained. See: "Kemalpaşaoğlu'nun Eserleri II," *Şarkiyat Mecmuası* 7 (1972), 133–4. Birsen Bulmuş also notes that some of the other renowned sixteenth-century scholars and literati, such as Idrīs Bidlīsī (d. 1520) or Ṭāshkoprīzāde (d. 1561), allow in their own plague treatises for this sort of magical prescription. See: Birsen Bulmuş, *Plague, Quarantines, and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2012), esp. 68–75.

26. The prime example is the tenth-century compendium on celestial magic entitled *Ghāyat al-ḥakīm* (The Aim of the Sage), long misattributed to Maslama ibn Aḥmad al-Majrīṭī, by the Andalusi mathematician Maslama al-Qurṭubī (d. 964). The book is known too in Europe as the *Picatrix,* having been translated into Castilian from Arabic around the mid-thirteenth century. For the German translation of the Arabic edition of the *Ghāyat al-ḥakīm,* see Hellmut Ritter and M. Plessner, eds., "*Picatrix": Das Ziel des Weisen von Pseudo-Magrīṭī* (London: Warburg Institute, 1962).

underpinnings of talisman making without suggesting specified treatments in many cases. Whenever he does provide anecdotal exempla as to the successful use of talismans, he often stops abruptly and refers the reader to his other works, such as the "Talismanic Treasury" (*Kenz-i ṭılsım,* or as titled in some copies *Kenz-i muṭalsam*) and the "Treasures of Desires and Signs of Curiosities" (*Kunūzü'l-meṭālib ve rumūzü'l-ġarā'ib*).[27] Unfortunately none of these titles have been listed in modern bio-bibliographic works, nor in the encyclopedic compendia from Ottoman times, including Kātib Çelebi's (d. 1657, also known as Ḥājjī Khalīfah) *Kashf al-ẓunūn ʿan asāmī l-kutub wa-l-funūn* ("The Removal of Doubts from the Names of Books and the Arts") and Ṭāshkoprīzāde's (d. 1561) *Miftāḥ al-saʿādah wa-miṣbāḥ al-siyādah fī mawḍūʿāt al-ʿulūm* ("The Key to Happiness and the Light of Command on the Subjects of the Sciences").[28]

In the general introduction, the author briefly goes over the nuances between different magical practices that cause certain effects in the terrestrial realm, though only in accordance with the eternal will of God (*irādetullāh*). Although he does not engage here in a sophisticated discussion of the Aristotelian classification of sciences, his treatment well resonates with the categories established in the medieval Islamicate taxonomies of knowledge.[29] According to the author, if the terrestrial influences occur merely through mental powers of the practitioner, it is called magic (*siḥr*). If there is aid drawn from other terrestrial elements and natural substances, then it is grouped into *nīrencāt* and *ḫavāṣṣ* (magical objects and occult properties). If the aid derives solely from invoking celestial objects and spirits, it is called invocations of the (spirits of the) stars (*daʿvet-i kevākib*). The science of talismans (*ʿilm-i ṭılsım*),

27. RT, 42v, 45v.

28. I have examined the following editions: Ṭāshkoprīzāde, *Miftāḥ al-saʿādah wa-miṣbāḥ al-siyādah,* 3 volumes (Ḥaydar Ābād Dakkan: Maṭbaʿat Dāʾirat al-Maʿārif al-ʿUthmānīyah, 1977); Kâtip Çelebi, *Keşfü'z-zunûn an esâmi'l-kütübi ve'l-fünün: Kitapların ve İlimlerin İsimlerinden Şüphelerin Giderilmesi,* trans. Rüştü Balcı, 5 volumes (İstanbul: Tarih Vakfi, 2007).

29. Several encyclopedists and theorizers/classifiers of knowledge in the late medieval and early modern Islamicate world such as Fakhr al-Dīn Rāzī (d. 1209), Ibn al-Akfānī (d. 1348), Ibn Khaldūn (d. 1406), or Ṭāshkoprīzāde have similar categories as to the classification of magical practice. See: Fakhr al-Dīn Rāzī, *Jāmiʿ al-ʿulūm ya Ḥadāyiq al-anwār fī ḥaqāyiq al-asrār maʿrūf bih Kitāb-i Sittīnī,* ed. Muḥammad Ḥusayn Tasbīḥī (Tehran: Kitābkhānah-i Asadī, 1346/1967–8); Ibn al-Akfānī, *Irshād al-qāṣid ilā asnā'l-maqāṣid,* ed. ʿAbd al-Laṭīf Muḥammad al-ʿAbd (Cairo: Maktabat al-Anjulū al-Miṣrīyah, 1978), 118–25; Ibn Khaldun, *The Muqaddimah,* ed. Franz Rosenthal, vol. 3 (Princeton; New Jersey: Princeton University Press, 1958), 156–70; Ṭāshkoprīzāde, *Miftāḥ al-saʿādah wa-miṣbāḥ al-siyādah,* vol. 1, 312–13, 330–34, 353–62.

according to the author, aims to link celestial forces with terrestrial ones in order to produce protective efficacy. As he explicates in his treatment here, by celestial forces he means heavenly influences (*āṯār-ı kevākib*), [the determination of] astrologically auspicious moments (*iḫtiyārāt-ı ṭavālīʿ*) and planetary aspects (*ittiṣālāt-ı felekiyye*), whereas by terrestrial powers he refers to the sublunary influences proper to the world of generation and corruption.[30] All in all, the author simply adopts here the general hermetic axiom, "as above so below," presupposing the necessary interdependence of celestial and terrestrial realms. Yet his strong emphasis on God's eternal will and His being the willfully choosing one (*fāʿil-i muḫtār*), a descriptor he repeats in the text on several other occasions, serves to create a pietistic framework and deter possible objections stemming from Islamic theological debates on God's omnipotence.

In the first chapter, the author treats of the influences affecting the sublunary world by means of both celestial and terrestrial forces. He devotes the first section to terrestrial forces, citing as example the magnet's attraction of iron, or the *Yada* stone, well known to nomadic Turkic tribes, which summons rain with the agency and permission of God.[31] After giving additional examples as to terrestrial influences known from Egypt and Iranian lands, he moves to the second section where he outlines the extent of celestial influences upon the sublunary world. Here the author again posits a pietistic ground by affirming that it is God alone who endowed each and every celestial object with separate qualities, and that human beings' limited mental capabilities are unable to fully comprehend their underlying mechanisms. He implicitly criticizes those who deny astral causality, because for him, by reason of external proofs (*delāʾil ve berāhīn*) and experiential knowledge (*tecrübe ve imtiḥān*), it is unreasonable to refute the influence of the heavens. He first cites as example the star cluster Pleiades (*Süreyyā*), which has a detrimental impact on animals and human beings. He then touches upon the similarly destructive effects of the Canopus (*Süheyl*), which he says is not seen in his own land (i.e. the lands of *Rūm,* the core territory in the Balkans and Anatolia inhabited and governed by the Ottomans), but is visible to the people of Yemen and Hejaz.[32] The author continues in this section with further examples pertaining to the impact of certain celestial objects and planetary configurations in different regions of the inhabited world. For instance, referring to Aristotle, he states that one's faculty of discernment can be damaged when

30. RT, 38r–38v.
31. Ibid., 39v.
32. Ibid., 40v–41r.

one looks directly at the sun during an eclipse; likewise, when the Moon conjuncts Venus in Taurus or Jupiter in Cancer, there is no benefit in taking medicine, a negative influence repeatedly experienced by earlier generations.[33] In a similar vein, when Saturn aspects Mercury in any of the earth signs (i.e. Taurus, Virgo, Capricorn) while the two luminaries (Sun and Moon) are cadent from the cardines (*sāḳıṭ*), such a celestial configuration causes earthquakes—at the behest of Divine Providence.[34]

Having briefly discussed terrestrial and celestial influences in the first two sections, he devotes the last section of the first chapter to illustrating the successful use of talismans in the pre-Islamic and Islamic eras through short anecdotes extracted from historical narratives. Among his direct references to such stories, the preponderance of works composed in Arabic, such as the *Maqāmāt* ("Sessions") of al-Ḥarīrī (d. 1122), *Kitāb al-ishārāt ilā maʿrifat al-ziyārāt* ("Guide to Knowledge of Pilgrimage Places") of al-Harawī (d. 1215), *Wafayāt al-aʿyān* ("Obituaries of the Eminent") of Ibn Khallikān (d. 1282), and the chronicles of Ibn al-Athīr (d. 1233) and Ibn Kathīr (d. 1373) testifies to the author's mastery of Arabic letters in addition to Ottoman Turkish, which he demonstrates throughout the text by means of his ornate rhymed prose and occasional sampling of poetry from the works of prominent late-fifteenth-century Ottoman poets.[35] This level of linguistic expertise in Arabic and refined Ottoman Turkish required the author's completion of a formal (madrasa) training in the language of scripture and his acquaintance with the literary fashions of urban Ottoman elites. In that regard, the high profile of Ibn Kemāl as a man of learning and literary taste renders him an ideal, if not the only, candidate for the text's authorship.

In the second chapter of the treatise the author delves into a more detailed astrological discussion to explicate the knowledge and know-how necessary for designing talismans. As Persis Berlekamp has succinctly noted, astrology formed the theoretical framework of talisman making, for the efficacy of talismanic images/motifs depended theoretically on the extent of the transfer of stellar powers into sublunary elements.[36] It is thus of utmost importance that one choose the right planet(s) for the operation in question, calculate the astrologically propitious moment when the relevant celestial forces are

33. Ibid., 41v–42r: "*tekrār be-tekrār imtiḥān olunmuṣdur.*"

34. Ibid., 42r.

35. At least two different times he quotes the verses of Necātī Beg (d. 1509).

36. Persis Berlekamp, *Wonder, Image, and Cosmos in Medieval Islam* (New Haven; London: Yale University Press, 2011), see especially her fourth chapter (119–49) entitled "Talismanic Images: Astrological Composites and Efficacious Symbioses."

dominant, and use natural substances that essentially correspond with the qualities of said planets.

Although Ibn Kemāl devotes his second chapter to a detailed astrological discussion, he starts his discussion by drawing a parallel between the science of talismans and the science of medicine. For him, just as medicine provides remedy to the human body, talismans are used to cure the "body of the earth."[37] He then continues with some of the requirements a qualified practitioner of talismans must meet, the foremost of which is excelling in the science of the stars (*ʿilm-i nücūm*), a term that naturally included astrology. He explicitly states here that the theoretical framework of the science of talismans relies solely upon the science of the stars.[38] He also briefly refers, for the first time in the treatise, to the importance of the use of (astronomical) instruments for astrological precision, only possible through the financial support of sultans and rulers.[39]

In the first section of the second chapter Ibn Kemāl provides a sophisticated discussion on the significance of determining with precision the astrologically auspicious moment (i.e. the Ascendant, Ar. *ṭālīʿ*) needed to cast efficacious talismans.[40] As the author advances, the theosized sages (*ḥükemāʾ-i ilāhiyyūn*) who had first invented talismans as a science drew on the nativities of individuals, as they came to realize that things befall on earth in consonance with the celestial configuration at the time of one's birth.[41] However, as the author reminds his readers once again, this configuration and the ensuing effect in the terrestrial realm take place as the necessary consequence of God's eternal divine will.[42] In line with his discussion of nativities, the author illustrates the customs of the sages in question, whom he leaves unidentified. Accordingly, whenever a child was born, they would determine the newborn's Ascendant. If the moment of birth implied misfortune and detrimental state, they would calculate from the near future another hour that would be

37. RT, 46r: "*ṭılsım beden-i ʿāleme ʿilāc itmekdir.*"

38. Ibid.: "'*ilm-i ṭılsımāt hemān ʿilm-i nücūmdan ʿibāretdir.*"

39. Ibid.

40. The Ascendant (*ṭālī*) is the point of the ecliptic rising on the eastern horizon at the given moment. It is considered the single most important astrological parameter calculated for any branch of astrological activity. See: David King and Toufic Fahd, "al-Ṭālīʿ," *Encyclopedia of Islam, Second Edition,* online version. The determination of the *ṭālīʿ* was so crucial in astrological predictions that in vernacular Turkish the word gradually transformed in the fifteenth and sixteenth centuries into *ṭālih*, which stands for fortune and luck.

41. RT, 46v.

42. Ibid.

auspicious. Upon designating the new Ascendant and determining the ruler planet, they would mold an *imago* of the baby (*ādem ṣūreti*) with the metal corresponding to that planet. As they took the *imago* to the newborn, the auspicious celestial influences derived from the *imago*'s Ascendant were virtually transferred to the infant. For the author, the celestial configuration at the time of birth, which is determined only by God's orders and will, is the single most important criteria for the efficacy of talismans; both suffumigations and invocations to the spirits of the planets pale in importance next to electing an auspicious hour.[43]

In line with his overall astrological leanings, he points out in the second section of the second chapter the proper astrological conditions recommended by the ancient sages and philosophers for the manufacture of talismans, and particularly those for repelling bubonic plague. As in previous parts of the text he does not specify here his sources, but one ideal astrological condition he suggests is Jupiter's being in either its exaltation (i.e., the fifteenth degree of Cancer) or either Sagittarius or Pisces. Another proper astrological condition for casting a talisman to help ward off the plague is the Sun's being in its exaltation (i.e., the eighteenth degree of Aries) while Jupiter is in Sagittarius.[44] In that case, the Ascendant will be in Aries and the Medium Coeli (i.e., the tenth astrological house) in Sagittarius, which concerns climatic conditions and urban matters.[45]

In the third and the last section of the second chapter he details how to manufacture talismans against bubonic plague. As he maintains, the essential metals to make efficacious talismans to this end are tin and copper, for these two metals correspond respectively to Jupiter and Venus, the two planets that govern bubonic plague. Moreover, the talismans sculpted from these metals should be as tall as human beings and the practitioners must know what to inscribe on them, including names of (planetary) spirits (*esmā'-i ervāḥ*) and other formulae.[46] The author also elaborates here on his earlier reference to the importance of the use of astronomical instruments for calculating the exact mathematical degree of the Ascendant. As he asserts, imprecise calculations of celestial degrees inevitably impair the efficacy of the manufactured talisman. He therefore recommends the use of sizeable astrolabes and quadrants featuring plates with detailed markings in terms of degrees and minutes.[47] He states, as many other proficient practitioners of astral sciences of

43. Ibid.
44. Within the text, the author does not specify these degrees.
45. R.T, 48r.
46. Ibid., 49v.
47. In the history of medieval astronomical observation in the Islamicate context,

the time would agree, that the influences produced by a specific celestial degree might be completely different than those arising in another degree.[48] Therefore, the use of such advanced instruments can help practitioners detect the desired celestial configuration with greater precision. These instruments, however, are not always procurable by practitioners; only by means of the patronage of the ruler of the age can experts realize their celestial pursuits.[49]

In the third and final chapter, he treats of issues other than celestial causality. Here the author discusses in which parts of the city the talismans should be situated in order to obtain the desired consequences, the reasons and preconditions of the disease's transmission among the population, and the inverse correlation between the occurrence of earthquakes and bubonic plague. As to this last point, he recounts a story from the Byzantine past of the Ottoman capital. One of the Byzantine rulers, whom the author does not specify, was vexed by the frequent earthquakes that killed thousands of people at a time. He then gathered competent natural philosophers and asked them whether there is any means to prevent earthquakes. These experts suggested that he hollow out the city and construct cellars, as this would confine to the underground the vapors and fumes that cause earthquakes. However, they also warned the ruler that such a measure might result in the occurrence of the bubonic plague. Comparing the destructive effects of earthquakes with those of bubonic plague, the Byzantine ruler decided to follow the experts'

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the precision of observational data was usually evaluated on the basis of the size of the astronomical instruments. The contention of the experts was such that the bigger the instruments, the more accurate the observations could be. See: Aydın Sayılı, *The Observatory in Islam and its Place in the General History of the Observatory* (Ankara: TTK, 1960), passim.

48. As it will be discussed later in this paper, Ibn Kemāl's master and benefactor Müʾeyyedzāde ʿAbdurraḥmān also discusses in his *Kalām* treatise that every celestial degree matters in astrological predictions. For the theoretical explanation of the astrological significance of each and every celestial degree, another mid-sixteenth-century astrologer and natural philosopher, Riyāżī (d. later than 1550), refers specifically to the teachings of Chaldean astrologers/natural philosophers, particularly the name Tangalūshā. Fakhr al-Dīn Rāzī's book on celestial magic, *al-Sirr al-maktūm,* was also informed by the teachings of Tangalūshā. For the detailed treatment of the cases of Müʿeyyedzāde ʿAbdurraḥmān and Riyāżī, see my unpublished dissertation. For Tangalūshā, see: *Tanklūsha, az muʾallifī-i nāshinākhtah*, ed. Raḥīm Riżā Zādah Malik (Tehran: Mīrās-i Maktūb, 1384/2005); Živa Vesel, "Teucros in Nizami's Haft Paykar," in *A Key to the Treasure of the Hakim: Artistic and Humanistic Aspects of Nizami Ganjavi's Khamsa*, ed. Johann-Christoph Bürgel & Christine van Ruymbeke (Leiden: University Press, 2011), 245–52.

49. RT, 50v: "*ṣāḥibḳırān-ı zamānıñ ʿināyeti.*"

recommendation, judging that unlike the earthquake, the bubonic plague is medically curable and does not cause the sudden death of thousands of victims.[50]

Before closing his treatise, the author revisits his earlier discussion on the significance of the science of the stars in crafting talismans, and inserts a short autobiographical passage telling how he developed an interest in astral lore. According to his narration, since his early years he has been preoccupied with learning many different branches of knowledge, and recently started studying the intricacies of natural-philosophical investigation, specifically the science of the stars (*ʿilm-i nücūm*) and theoretical astronomy (*ʿilm-i hayʾa*).[51] From there he proceeded to the science of talismans, which, as he avers, is a branch of natural philosophy. He studied its general theoretical principles along with its practical applications; however, he was unable to complete the necessary operations due to a lack of sufficient practical experience as well as technical and financial assistance.[52] He adds that particularly with respect to warding off bubonic plague, he carefully examined the prescriptions and auspicious celestial configurations offered by previous philosophers, whom he does not specifically name. If the sultan could help him take the necessary practical measures, the author suggests, this would enable him to achieve the desired outcomes in short order.

Pertaining to his request for the royal support, he raises another important issue related to cutting-edge research and technology as to celestial observation. There is, for the author, an urgent need for undertaking a new observational program and preparing a revised handbook of astronomical tables (*zīj*), because all the available *zīj*es, including even the *Zīj-i Ulugh Beg* ("Ulugh Beg Star Tables"), the most revered and widely used one among Ottoman

50. Ibid., 54r.

51. Despite the established conviction in the current historiography of science in the Islamicate context which assumed that from the tenth century onwards the category of *ʿilm al-nujūm* gradually disappeared and the boundaries between astrology (*ʿilm aḥkām al-nujūm*) and astronomy (*ʿilm al-hayʾa*) strictly consolidated, the production of astral knowledge in the post-thirteenth-century Turko-Persian context clearly demonstrates that the term *ʿilm al-nujūm* was still in use to allude to the practical astrological pursuits. For the relevant discussion on terminology, see: George Saliba, "Islamic Astronomy in Context: Attacks on Astrology and the Rise of the *Hayʾa* Tradition," *Bulletin of the Royal Institute of Inter-Faith Studies* 4, no. 1 (2002): 25–46; F. Jamil Ragep, "Astronomy," *Encyclopedia of Islam, Third Edition,* online version; Matthew Melvin-Koushki, "Powers of One: The Mathematicalization of the Occult Sciences in the High Persianate Tradition," *Intellectual History of the Islamicate World* 5/1 (2017): 127–99.

52. RT, 55r.

astrologers from the early sixteenth century onwards, fail to meet practitioners' needs of precision. As he emphasizes, temporal calculations of celestial phenomena made on the basis of these tables often contradict personally observed values, and those individuals ignorant of the defects in the tables often blame astrologers for their miscalculations. Therefore, a new systematic observational program should be initiated in order to correct the existing data and parameters in the circulating *zīj*es. Undertaking such a costly endeavor, however, is not possible without the (financial) support of the reigning sultan. If the sultan shows his benevolence in backing such an undertaking, then even the most worthless and useless natural philosopher of the time will soon become a new Aristotle or Plato.[53]

THE ROLE OF OBSERVATIONAL AND EXPERIENTIAL KNOWLEDGE

The epilogue wherein the author makes his request for royal support and cites the urgent need to produce new astronomical tables is striking for a number of reasons. First of all, it provides additional precious evidence as to how the celestial data presented in astronomical tables were put in use for astrological and divinatory purposes. Secondly and relatedly, the epilogue also suggests the considerable extent to which astral experts relied on and jockeyed for royal patronage for advancing current scientific knowledge in astronomical observation and mathematical computation. Finally, the epilogue helps set a *terminus ante quem* for the date of the text's composition and elaborate the discussion on the authenticity of its authorship by Ibn Kemāl.

Despite the continuing reluctance of modern scholarship to emphasize —or even acknowledge—the astrological and divinatory uses of the *zīj* genre, these texts were manifestly astrologers' indispensable tools for making the necessary planetary calculations.[54] Unlike modern studies, however, the

53. RT, Süleymaniye Library Esad Efendi Ms. 3782, 89r: "[B]*u aṣl aʿmāl-i ʿaẕīme ve umūr-i cesīme muʿāvenet-i ṣāḥibḳırān-ı zamān ve ḥimāyet-i ḫāḳān-ı Süleymān-mekān olmayınca ẓuhūra gelmek mümkün değildir ammā añlarıñ ʿināyet-i Ferīdūn-ferleri ve himmet-i İskender-eserleri ẓuhūr bulucaḳ en kemter-i bī-kes ü dūn Arisṭūṭālīs ve Eflāṭūn olmaḳ muḳarrerdir.*" Curiously, this part does not take place in the copy available at Hacı Mahmud Efendi Ms. 5584.

54. On the dynamics of the *zīj* production, see: Edward S. Kennedy, "A Survey of Islamic Astronomical Tables," *Transactions of the American Philosophical Society,* New Series, 46/2 (1956): 123–77; David A. King an Julio Samso' (with a contribution by Bernard R. Goldstein), "Astronomical Handbooks and Tables from the Islamic World (750–1900): an Interim Report," *Suhayl: International Journal for the History of the Exact and Natural Sciences in Islamic Civilisation* 2 (2001): 9–105; Benno Van Dalen, *Islamic Astronomical Tables: Mathematical Analysis and Historical Investigation* (Farnham, Surrey: Ashgate, 2013). Although they all seem aware of the possible astrological uses of the

zīj literature is often candid as to its astrological applications. For instance, in the *Zīj-i Īlkhānī* (the Ilkhanid Tables produced in the mid-thirteenth century at the Maragha observatory), Naṣīr al-Dīn Ṭūsī (d. 1274) explicitly writes that if one wants to have foreknowledge about earthly matters, such as the security of the country, warfare and peace among rulers, or the fortunes of newborns, it is crucial to run systematic observations and prepare tables that allow one to calculate, for any given moment and latitude, the exact positions of celestial objects.[55]

According to Edward S. Kennedy and some of his colleagues and students, there are over two hundred surviving *zīj*es produced in the first millennium of the Islamicate civilization. Nonetheless not all these *zīj*es were composed on the basis of a systematic observational program, and oftentimes the data and parameters on planetary motions provided by each are mutually contradictory. These frequent inconsistencies between the calculated times of certain celestial phenomena such as eclipses and their personally observed values thus prompted new generations of astral experts to undertake fresh and ideally longer observational programs.[56]

The history of the construction and destruction of observatories in the post-thirteenth-century Turko-Persian politico-cultural context provides ample evidence for the astrological purposes of systematic observational enterprises that were made possible by courtly patronage. The heightened interest in astronomical observations (*raṣad*), many of which had to be interrupted due to political turmoil and/or lack of consistent financial support, stemmed primarily from the desire to improve the quality of the available planetary data utilized by practicing astrologers. At the end of each systematic observation program a new *zīj* with revised figures was produced. For example, the observational activities at the Samarqand observatory around the mid-fifteenth century, whose goal was the revision of the data and parameters

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zīj literature, King and Samso say for instance "there is precious little historical evidence how these works were used in practice."

55. *Zīj-i Īlkhānī,* Bibliotheca Medicea-Laurenziana, Ms. Or. 24, 3v.

56. All heavenly experts in the medieval Islamic realm understood, correctly, that in order to obtain more accurate results from observations, one should conduct at least thirty years of systematic observation, because it takes around thirty years for Saturn, the outermost planet in traditional cosmology, to complete its rotation through the ecliptic. See: Sayılı, *The Observatory in Islam,* passim. For the grievances in the post-thirteenth-century Turko-Persian context due to the incompatibility of calculated and observed celestial values, also see: Mohammad Mozaffari, "Wābkanawī's Prediction and Calculations of the Annual Solar Eclipse of 30 January 1283," *Historia Mathematica* 40 (2013): 235–61.

of tables in circulation, ultimately yielded the *Zīj-i Ulugh Beg* ("Ulugh Beg Star Tables," aka *Zīj-i Jadīd-i Sulṭānī*, "New Sultanic Star Tables"), which eventually became the main reference work for Ottoman and other astrologers from the sixteenth century onwards.[57]

However, the Ulugh Beg tables were also not exempt from criticisms from those Ottoman astral experts who used them due to the discrepancies between observed and calculated celestial phenomena. While the earliest example of such discontent dates back to the early 1480s, it was only in the mid-1570s that an Ottoman astral expert (i.e., Taqī al-Dīn [d. 1585]) finally convinced a patron sultan (i.e., Murād III) to establish an observatory in Istanbul and run a new observational program (*raṣad-ı cedīd*).[58] Although the observatory was soon demolished after the *şeyḫülislām* of the time issued a fatwa proclaiming the inauspiciousness of the observatory and the necessity of its destruction, Taqī al-Dīn and his collaborators persevered in their project of preparing revised tables based upon their own limited observations.[59] In this context, the epilogue section in the talismanic treatise, which touches precisely on the need for a new observational program and astronomical tables, not only epitomizes the dissatisfaction of contemporary Ottoman astral experts with the authoritative astronomical sources, but also unequivocally sets the date of its composition before the 1570s.

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57. For the statistical examination of the *zīj*es preferred by the Ottoman astrologers from the mid-fifteenth to the mid-seventeenth century, see Appendix C in my unpublished dissertation.

58. In 1483, one of the Persian émigré astrologers at the court of Bāyezīd II (r. 1481–1512) made solar observations in Istanbul to test the data provided by three popular *zīj*es and reached a conclusion that the tables of his own master, Rukn al-Dīn Āmulī (d. later than 1455) yielded more accurate results than both the Ulugh Beg and Ilkhanid Tables. See: Mortaza Somi and Mohammad Bagheri, "Risāla-i tashrīḥ al-ālāt fī shaʿn al-imtiḥānāt az Sayyid Munajjim Ḥusaynī," *Mirāth-i ʿIlmī-yi Islām va Īrān* 2, no.1 (1392/2013): 181–205. Taqī al-Dīn also emphasized the need for revising tables (*zīj*) when he approached the sultan and expressed his demand to establish an observatory for conducting a systematic observational enterprise. See: Aydın Sayılı, "Alâuddin Mansur'un İstanbul Rasathanesi Hakkındaki Şiirleri," *Belleten* 20, no. 79 (1956): 411–84; Remzi Demir, *Taḳiyüddîn'de matematik ve astronomi: Cerîdedü'd-dürer ve ḫarîdetü'l-fiker üzerine bir inceleme* (Ankara: Atatürk Kültür Merkezi Başkanlığı, 2000).

59. For the story of Taqī al-Dīn and the Istanbul observatory, see: Aydın Sayılı, *The Observatory in Islam,* esp. 289–305. For the inherent political contention that involved the decision process of its demolition, see: Baki Tezcan, "Some Thoughts on the Politics of Early Modern Ottoman Science," in *Beyond Dominant Paradigms in Ottoman and Middle Eastern/North African Studies: A Tribute to Rifa'at Abou-El-Haj,* ed. Donald Quataert and Baki Tezcan (İstanbul: İSAM, 2010), 135–56.

Before elaborating on the question of the authorship of this text, it is worth noting that the discussion in the epilogue on the need for advanced observational data is somewhat related to the arguments proposed in earlier chapters as to the significance of experience (*tecrübe* in Ottoman Turkish, *tajriba* in Arabic) as an epistemological category. As noted above, in the first two chapters of the treatise the author puts considerable emphasis on the value of experiential knowledge and often reminds his readers that the patterns of celestial causality he discusses have been repeatedly tested (*imtiḥān*) and experienced.[60] He even says, without providing a concrete example, that his own personal experiences during his limited lifespan have proven to him the reality of celestial influences.

As Tzvi Langermann has demonstrated in a recent study, the category of experience had a significant place in late medieval and early modern epistemological discussions, particularly in the fields of applied arts and sciences.[61] In the case of astrology, astrologers often grounded the scientific basis of their forecasts in the accumulated recorded experiences of past masters. For example, in the rich corpus of Ottoman astrological materials, specifically in the annual almanac prognostications (sg. *taḳvīm*), the Ottoman astrologers often note that the accumulated reports of past experts pertaining to experienced celestial influences in the terrestrial realm endow them with the necessary practical information to communicate their astrological predictions.[62]

Langermann also points out in the same article, drawing on earlier studies by George Saliba, Bernard R. Goldstein, and Abdelhamid I. Sabra, that while repeated experience (*tajriba* in Arabic) is central to the applied sciences, including astrology, it was considered to have no epistemological role in exact scientific pursuits as represented in the first place by astronomical theory and observation.[63] According to Langermann and others, it is significant that epistemological categories other than *tajriba,* such as *imtiḥān* (test) or *istiḳrāʾ* (induction) are employed in optical and/or astronomical texts.[64] Although it is true that the author of the present treatise on talismans does not use the

60. RT Süleymaniye Library Esad Efendi Ms. 3782, 86v–87r: "*tekrār tekrār imtiḥān olmuşdur; mirāren tecrübe olunmuşdur.*"

61. Tzvi Langermann, "From my Notebooks. On *Tajriba/Nissayon* ("Experience"): Texts in Hebrew, Judeo-Arabic, and Arabic," *Aleph* 14, no. 2 (2014): 147–76.

62. I should add that despite astrologers' remarks on the value of "experience" in astrological practice, they also express their concerns about the epistemological constraints of their craft. This is discussed in more detail in the first chapter of my unpublished dissertation.

63. Langermann, 149.

64. Ibid., 150.

category of experience in his later discussion of the urgent need for a new observational program, his analytical treatment throughout the text assumes an organic connection between experiential and observational knowledge. It is self-evident to him that a) talismans are produced on the basis of prescriptions culled from past authorities' experiences, and b) their efficacy is enhanced if the practitioner makes precise planetary calculations on the basis of state-of-the-art observational knowledge.

IBN KEMĀL, TALISMANIST?

Was Ibn Kemāl then our talismanist? We cannot be sure, as there is no extant copy of the treatise from his own lifetime. Yet, considering that all references quoted in the text are from sources in Arabic and Ottoman Turkish produced prior to the early sixteenth century and that there is an explicit request at the end of it to conduct a new systematic observation program, the likely date of its composition falls within the temporal range Ibn Kemāl flourished. Needless to say, reference must be made to his other works as well as his immediate intellectual habitat for a more nuanced discussion on the likelihood of this text's authorship by Ibn Kemāl.

Despite a few earlier scholarly attempts in Turkish to portray the general contours of Ibn Kemāl's prolific and polymathic character, we still lack careful historical studies that scrutinize the formation and evolution of his intellectual outlook.[65] Nevertheless, even a cursory examination of some of his works clearly reveals that unlike modern scholars Ibn Kemāl considered it natural and unexceptional for a traditional *ʿālim* to engage in certain occult-scientific practices. In his aforementioned report to Selīm I, for instance, he undertakes a lettrist interpretation of a particular quranic verse (Q 21:105), construing it as a good omen for the sultan's campaign against the Mamluks: Selīm's epochal conquest of Egypt, he argues, is predicted in the Quran and hence inevitable. In the fourth book of his ten-volume history of the Ottoman dynasty, moreover, he narrates, in a highly positive manner, the story of the infamous serpent talismans in the hippodrome of Constantinople constructed by Constantine the Great. He says, further embellishing the narrative with verses of his own composition, that after Constantine erected the talismanic column, most of the snakes departed the city, and those few that remained became harmless.[66] In other volumes of his chronicle are numerous

65. In addition to the studies cited in fn. 17, also see: *Şeyhülislam İbn Kemâl Sempozyumu: Tebliğler ve Tartışmalar: Tokat, 26–29 Haziran 1985,* ed. S. Hayri Bolay et al. (Ankara: Diyanet Vakfı, 1986).

66. V. L. Ménage, "The Serpent Column in Ottoman Sources," *Anatolian Studies* 14 (1964): 169–73.

passages replete with astrological imagery and metaphors, as well as anecdotes on different Ottoman statesmen taking counsel with astrologers.[67] More significantly, his large fatwa corpus includes a ruling wherein Ibn Kemāl explicitly declares there to be nothing wrong in using the Quran for bibliomancy.[68] It is also worth noting that his fatwa collection does not include a single entry that condemns the mischief caused by astrologers or the blasphemousness of magicians. Given the fact that denouncing astrologers and sorcerers was a standard theme in the fatwa compilations of earlier jurists like Ibn Taymiyya (d. 1328) and Ibn Qayyim al-Jawziyya (d. 1350) or later Ottoman *şeyḫülislāms* in the seventeenth and eighteenth centuries, the absence of a relevant entry in his corpus is highly indicative of Ibn Kemāl's overall pro-astrology stance.[69] Last but not least, in one of his shorter theological treatises where he treats of the knowledge of the five unknown entities (*muġayyebāt-ı ḫamse*), including the time of the apocalypse or the fortunes of an unborn baby, Ibn Kemāl manifests a similar attitude. He naturally disapproves of those who claim with certainty that they possess the knowledge of the unknown (*ġayb*), for such certitude is God's alone. He adds, however, that since any attempt to grasp the knowledge of the unknown is conjectural (*taḫmīnī*), and as long as the individual admits that their episteme is based upon speculation (*ẓann*), then there is no need to declare them an unbeliever.[70]

With respect to his immediate intellectual environment and scholarly peers, Müʾeyyedzāde ʿAbdurraḥmān deserves special consideration. Ibn Kemāl's close relationship with him as his intellectual protégé started in the late 1490s and remained intact until the latter's death in 1516. Müʾeyyedzāde not only functioned as one of his teachers but also helped him advance swiftly in the scholarly hierarchy. It was Müʾeyyedzāde, for instance, who convinced

67. İbn Kemāl, *Tevarih-i Al-i Osman 8. Defter*, ed. Ahmet Uğur (Ankara: Türk Tarih Kurumu, 1997), passim.

68. Ahmet İnanır, *Şeyhülislâm İbn Kemal'in fetvaları ışığında Kanûnî devrinde Osmanlı'da hukukî hayat: Meseleler ve çözümleri (Fetâvâ-yı İbn Kemal)* (İstanbul: Osmanlı Araştırmaları Vakfi, 2011), 216.

69. See: Yahya Michot, "Ibn Taymiyya on Astrology: Annotated Translation of Three Fatwas," in *Journal of Islamic Studies* 11, no. 2 (2000): 147–208; John W. Livingston, "Ibn Qayyim al-Jawziyyah: A Fourteenth Century Defense against Astrological Divination and Alchemical Transmutation," *Journal of the American Oriental Society* 91, no. 1 (1971): 96–103. The change in the ways Ottoman *şeyḫülislāms* approached occult practices will be treated in more detail in my forthcoming article, tentatively entitled "The Ottoman Reception of Occult Sciences in Light of *fatwā* Compilations from the 16th through the 18th Centuries."

70. Şamil Öçal, *Kemal Paşazade'nin Felsefi ve Kelami Görüşleri,* 333–35.

Bāyezīd II to assign to Ibn Kemāl the task of composing in Turkish the history of the Ottoman dynasty.[71]

Despite his tremendous impact upon the Ottoman scholarly establishment in the first half of the sixteenth century, Mü'eyyedzāde has largely escaped the attention of modern scholars.[72] It is beyond the confines of this article to construct the intellectual biography of Mü'eyyedzāde, but for our purposes here I will briefly highlight his penchant for astral science, including both its mathematical-astronomical subsets and astrological-prognosticative applications. His rich library, for example, housed almost all the key works in the Islamic astronomical, astrological, and astral-magical corpus. According to the catalogue prepared in the late 1510s, which records the surviving titles from his massive seven thousand volume collection, Mü'eyyedzāde possessed, among many other relevant items, more than fifteen copies of various *zīj*es, several copies of (pseudo-)Ptolemy's *Centiloquium,* unspecified treatises by Abū Maʿshar, Fakhr al-Dīn Rāzī's seminal compendium of celestial magic (*al-Sirr al-maktūm*), at least one copy of Maslama al-Qurṭubī's *Ghāyat al-ḥakīm*, and several other anonymous works on different occult sciences including talismans (*Risāla fī l-ṭilasmāt*), lettrism, or magic squares.[73]

Besides holding these and other relevant titles in his personal library, Mü'eyyedzāde also demonstrated in his own scholarly works his erudition in the astral sciences. For instance, in the theological treatise he dedicated to Bāyezīd II, he strives to refute some of the anti-astrology arguments that some earlier theologians raised as regards to the questions about God's omnipotence or the standard twin problem. In his refutation Mü'eyyedzāde emphasizes that none of the astrological authorities ascribes unmediated power to celestial bodies. Quite to the contrary, they often accentuate the underlying divine control of the cosmic configuration. As he maintains, the way celestial bodies operate is a clear sign of God's power and wisdom, and that denying the interdependence of celestial and terrestrial realms makes one an unrighteous person. With respect to the twin problem, which was often used in polemical literature to refute astrological principles, Mü'eyyedzāde says that

71. Şerafettin Turan, "Kemalpaşazade," *Türkiye Diyanet Vakfı İslam Ansiklopedisi,* v. 25, 238.

72. One recent important contribution is Judith Pfeiffer's "Teaching the Learned: Jalāl al-Dīn al-Dawānī's *Ijāza* to Mu'ayyadzāda ʿAbd al-Raḥmān Efendi and the Circulation of Knowledge Between Fārs and the Ottoman Empire at the Turn of the Sixteenth Century" published in *The Heritage of Arabo-Islamic Learning. Studies Presented to Wadad Kadi,* ed. Maurice A. Pomerantz and Aram A. Shahin (Leiden: Brill, 2016), 284–322.

73. Topkapi Palace Museum Archives D. 9291/1–2.

what really matters in the astrological interpretation is not the time of birth but rather the time of conception. As all the authoritative sources including Ptolemy would agree, he says, the effects in the terrestrial realm can drastically change with even the slightest shift in celestial degrees.[74]

When we juxtapose the statements asserted in our treatise on talismans with Müʾeyyedzāde's refutation of anti-astrology polemics, the close intellectual affinity in the way both treat the scope of celestial influences upon the terrestrial realm is unmistakable. Nevertheless, neither the passages from Ibn Kemāl's other writings nor his master Müʾeyyedzāde's erudition in the astrological study of the heavens can decisively prove that the treatise in question was written by Ibn Kemāl. But what such circumstantial evidence portrays for certain is the existence of a dynamic intellectual milieu in the sixteenth-century Ottoman capital where it was deemed normal, if not always popular, for a traditional scholar to pursue occult knowledge and practice.

The true identity of the author of the treatise on talismans examined in this article aside, this short tract hints at the many rewarding perspectives the rich but hitherto unexplored corpus of late medieval and early modern Ottoman occult texts can provide. Due primarily to language constraints, it is Ottoman historians who must enter this uncharted territory. Yet such study will not only benefit Ottoman studies; broader Europeanist and Islamic historiographical traditions have much to learn from Ottoman occult experience.

74. Müʾeyyedzāde, *Risāla al-ḥawāshī ʿalā al-mawāqif,* Süleymaniye Library Ayasofya Ms. 2283, 8r–10v.

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